January 4, 2002

Mr. Harold W. Keiser Chief Nuclear Officer & President PSEG Nuclear LLC - X04 Post Office Box 236 Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2, ISSUANCE OF AMENDMENT RE: CHANGE TO TECHNICAL SPECIFICATIONS 28 VOLT D.C. DISTRIBUTION - OPERATION (TAC NOS. MB2042 AND MB2043)

Dear Mr. Keiser:

The Commission has issued the enclosed Amendment Nos. 249 and 229 to Facility Operating License Nos. DPR-70 and DPR-75 for the Salem Nuclear Generating Station, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated April 16, 2001, as supplemented on July 5, 2001.

These amendments modify TS requirements associated with the operation and surveillance testing of the 28-Volt D.C. (VDC) Batteries. The revised Limiting Condition for Operation (LCO) and Surveillance Requirements (SRs) are now more consistent with the 125 VDC Battery System LCO and SRs as well as similar to standard TSs provided by NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 1, dated April 1995.

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly <u>Federal Register</u> notice.

Sincerely,

/RA/

Robert J. Fretz, Project Manager, Section 2 Project Directorate I Division of Licensing Project Management Office of Nuclear Reactor Regulation

Docket Nos. 50-272 and 50-311

Enclosures: 1. Amendment No. 249 to

License No. DPR-70

2. Amendment No. 229 to License No. DPR-75

3. Safety Evaluation

cc w/encls: See next page

Mr. Harold W. Keiser Chief Nuclear Officer & President PSEG Nuclear LLC - X04 Post Office Box 236 Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2, ISSUANCE OF

AMENDMENT RE: CHANGE TO TECHNICAL SPECIFICATIONS 28 VOLT D.C.

DISTRIBUTION - OPERATION (TAC NOS. MB2042 AND MB2043)

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cc w/encls: See next page

<u>DISTRIBUTION</u>

PUBLIC EAdensam CHolden GMeyer, RGN-I

PDI-2 R/F JClifford SSaba GHill(4)

OGC RFretz WBeckner

ACRS TClark

*SE Input provided. No major changes made ACCESSION NUMBER: ML013240680

** See previous concurrence

OFFICE	PDI-2/PM	PDI-2/LA	EEIB/SC*	OGC**	PDI-2/SC
NAME	RFretz	TLClark	CHolden	RWeisman	VNerses for JClifford
DATE	12/18/01	12/20/01	09/05/01	12/14/01	01/04/02

PSEG NUCLEAR LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-272

SALEM NUCLEAR GENERATING STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 249 License No. DPR-70

- 1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the PSEG Nuclear LLC and Exelon Generation Company, LLC (the licensees) dated April 16, 2001, as supplemented on July 5, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-70 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 249, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA VNerses for/

James W. Clifford, Chief, Section 2 Project Directorate I Division of Licensing Project Management Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical

Specifications

Date of Issuance: January 4, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 249

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Replace the following pages of the Appendix A, Technical Specifications, with the attached revised pages as indicated. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages	Insert Pages		
3/4 8-11	3/4 8-11		
3/4 8-12	3/4 8-12		
_	3/4 8-12a		
_	3/4 8-12b		

PSEG NUCLEAR LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-311

SALEM NUCLEAR GENERATING STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 229 License No. DPR-75

- 1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the PSEG Nuclear LLC and Exelon Generation Company, LLC (the licensees) dated April 16, 2001, as supplemented on July 5, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-75 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 229, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA VNerses for/

James W. Clifford, Chief, Section 2 Project Directorate I Division of Licensing Project Management Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical

Specifications

Date of Issuance: January 4, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 229

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Replace the following pages of the Appendix A, Technical Specifications, with the attached revised pages as indicated. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages	Insert Pages
3/4 8-13	3/4 8-13
3/4 8-14	3/4 8-14
_	3/4 8-14a
_	3/4 8-14b

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 249 AND 229 TO FACILITY OPERATING

LICENSE NOS. DPR-70 AND DPR-75

PSEG NUCLEAR LLC

EXELON GENERATION COMPANY, LLC

SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-272 AND 50-311

1.0 INTRODUCTION

By letter dated April 16, 2001, as supplemented on July 5, 2001, PSEG Nuclear LLC (PSEG or the licensee) submitted a request for changes to the Salem Nuclear Generating Station, Unit Nos. 1 and 2 (Salem), Technical Specifications (TSs). The requested changes would modify the requirements contained in the TSs regarding the operation of the 28-Volt D.C. (VDC) batteries. PSEG stated that these changes will provide the flexibility needed to address changes in individual battery cell performance over the battery's life while ensuring that overall battery performance meets or exceeds minimum design requirement. The July 5, 2001, letter provided clarifying information that did not change the scope of the initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

General Design Criterion 17 (GDC 17) requires that onsite and offsite electrical power be provided to facilitate the functioning of structures, systems, and components important to safety. Each electric power system, assuming the other system is not functioning, must provide sufficient capacity and capability to ensure that specified acceptable fuel design limits and the design conditions of the reactor coolant pressure boundary are not exceeded as a result of anticipated operational occurrences, and that the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents.

At Salem, the 28 VDC Control Power System provides electrical power for: (a) communications from the Control Room console to auxiliary control system relay cabinets for both normal and emergency operations; (b) the operation of the Solid State Protection System (SSPS) interface cabinets; (c) the Fire Alarm System, Mimic Bus, and Power Range Recorders; and (d) other miscellaneous equipment.

The 28 VDC system consists of two trains; each train consisting of a 28 VDC bus, 28 VDC battery, a battery charger and a backup charger. During normal operations, the 28 VDC loads

are powered by the battery chargers with the battery floating on the system. In case of a loss of the charger, the DC loads are automatically fed from the battery. The batteries are sized with a design margin of 5%, an aging margin of 25%, and the appropriate temperature margin associated with the minimum TS temperature. The design limit of each cell is 2.13 volts which corresponds to a total battery voltage of approximately 28 volts. Each charger has ample capacity for the steady-state operation during normal operation while at the same time maintaining its battery fully charged. Each battery charger will be able to recharge its connected battery from the design minimum charge to its fully charged state within 12 hours while supplying the normal steady-state loads.

The proposed revisions of TS 3.8.2.5/4.8.2.5.2 for Salem includes battery acceptance criteria, corresponding allowed outage times, and additional surveillance requirements (SRs) recommended in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 1, dated April 1995.

3.0 EVALUATION

The staff reviewed and evaluated the proposed changes to the Salem TSs based on the recommendations of the Institute of Electronic and Electrical Engineers (IEEE) Standard 450-1995, "IEEE Recommended Practice For Maintenance, Testing, And Replacement Of Vented Lead-Acid Batteries For Stationary Applications," and Regulatory Guide (RG) 1.129, "Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Nuclear Power Plants."

3.1 Limiting Condition for Operation (LCO) 3.8.2.5, Action Statement b.

TS LCO 3.8.2.5, Action Statement b., is deleted and replaced with new Actions "c" through "f" as follows:

- c. With one or more 28-volt D.C. batteries with one or more battery cell parameters not within the Category A or B limits of Table 4.8.2.5-1:
 - 1. Verify within 1 hour, that the electrolyte level and float voltage for the pilot cell meets Table 4.8.2.5-1 Category C limits, and
 - 2. Verify within 24 hours, that the battery cell parameters of all connected cells meet Table 4.8.2.5-1 Category C limits, and
 - 3. Restore battery cell parameters to Category A and B limits of Table 4.8.2.5-1 within 31 days, and
 - 4. If any of the above listed requirements cannot be met, comply with the requirements of action f.
- d. With one or more 28-volt D.C. batteries with one or more battery cell parameters not within Table 4.8.2.5-1 Category C values, comply with the requirements of action f.

- e. With average electrolyte temperature of representative cells less than 65°F, comply with the requirements of action f.
- f. Restore the battery to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

The above Action Statements require that the pilot cell electrolyte level, specific gravity, and float voltage are verified to be within the limits of Category C of Table 4.8.2.5-1, "Battery Cell Parameter Requirements," within 1 hour. Table 4.8.2.5-1 requires that: (1) the electrolyte levels be above the top of the plates and not overflowing; (2) the specific gravity for each connected cell be not more than 0.020 below the average of all connected cells, and the average of all connected cells be \geq 1.190; and (3) the float voltage for each connected cell be \geq 2.07 volts. Category C requirements are the minimum battery parameters necessary to ensure that the 28 VDC batteries maintain sufficient capacity to meet the initial conditions of Salem's accident analysis. The 1-hour period provides a reasonable amount of time for the licensee to restore the batteries to the minimum capacity necessary for operability.

In addition, the LCO requires that the 28 VDC batteries be restored to meet the Category A and B battery parameters within 31 days. These are more stringent requirements, and have been established to ensure optimal long-term battery performance. For example, the criterion to maintain a float voltage of \geq 2.13 volts per connected cell endures a sufficient over-potential to limit the formation of lead sulfate and self discharge. Assuming the batteries' minimum (Category C) parameters are met, restoration of Category A and B battery parameters within 31 days is a reasonable time limit to ensure that the batteries will continue to perform its intended long-term performance function. If the battery is not restored to within Category A and B limits within 31 days, the battery is to be declared inoperable.

The staff finds that the changes to TS 3.8.2.5.b are acceptable since the 28 VDC batteries will continue to meet GDC 17 by having sufficient capacity to remain OPERABLE to allow continued operation, even if the battery is degraded until it is restored to Category A and B parameters.

3.2 LCO 3.8.2.5, Action Statement c.

TS 3.8.2.5, Action Statement c., is renumbered as Action Statement b. The staff finds this acceptable since this change is an editorial correction due to the addition of Action Statements "c" through "f" described in Section 3.1 of this Safety Evaluation (SE).

3.3 SR 4.8.2.5.2, Parts a.1 Through a.4

TS SR 4.8.2.5.2, parts a.1 through a.4, currently provides that a battery is operable if it is verified that:

- 1. The electrolyte level of the pilot cell is between the minimum and maximum level indication mark.
- 2. The pilot cell specific gravity, corrected to 77°F, and full electrolyte level, is greater than or equal to 1.200.

- 3. The pilot cell voltage is greater than or equal to 2.08 volts.
- 4. The overall battery voltage is greater than or equal to 27 volts.

The aforementioned requirements are deleted and replaced by:

- 1. The parameters in Table 4.8.2.5-1 meet Category A limits.
- 2. The overall battery voltage is greater than or equal to 27 volts on float charge.

Category A cell parameters are related to the limits for each designated pilot cell and the SRs meet the intent of the IEEE 450 "Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications."

The verification of the overall battery voltage has been modified to require it to be done while the battery is on float charge, and this helps to ensure the effectiveness of the charging system. During such surveillance, the battery charger is supplying the loads, and the battery is on a float charge condition, fully charged, and ready to supply the loads in case the charger is inoperable. The staff finds that the measurement of battery voltage on float is acceptable since it reflects the actual status of the system, and will continue to allow the licensee to determine operability and conformance with GDC 17.

3.4 SR 4.8.2.5.2.b.

TS SR 4.8.2.5.2.b currently provides, in part, that each 28 VDC battery and required charger shall be demonstrated operable:

- b. At least once per 92 days by verifying that:
 - 1. The voltage of each connected cell is greater than or equal to 2.13 volts under float charge and has not decreased more than 0.27 volts from the value observed during the original acceptance test.
 - 2. The specific gravity, corrected to 77°F and full electrolyte level of each connected cell is greater than or equal to 1.200 and has not decreased more than 0.02 from the value observed during the previous test.
 - 3. The electrolyte level of each connected cell is between the minimum and maximum level indication marks.

The aforementioned requirements are deleted and replaced by:

b. At least once per 92 days and once within 24 hours after a battery discharge less than 25.7V and once within 24 hours after a battery overcharge greater than 35V by verifying that the parameters in Table 4.8.2.5-1 meet the Category B limits.

The quarterly and once within 24 hours after a battery discharge or overcharge SR requirements are related to verification that each connected cell is meeting the limits of Category B of Table 4.8.2.5-1. These limits are consistent with the recommendations of

IEEE-450 and are in conformance with industry practice and manufacturer recommendations. The staff finds the changes to SR 4.8.2.5.2.b are acceptable since the associated requirements of GDC 17 for the 28 VDC Battery System will be ensured with satisfactory completion of this SR.

3.5 SR 4.8.2.5.2.c.

TS SR 4.8.2.5.2.c currently provides that each 28 VDC battery and required charger shall be demonstrated operable:

- c. At least once per 18 months by verifying that:
 - 1. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.
 - 2. The cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material.
 - 3. The battery charger will supply at least 150 amperes at 28 volts for at least 4 hours.

This SR requirement is deleted and replaced by:

- c. At least once per 92 days by verifying that:
 - 1. There is no visible corrosion at terminals or connectors or the connection resistance is:
 - ≤ 50 micro ohms for inter-cell connections,
 - ≤ 200 micro ohms for inter-tier connections,
 - To micro ohms for field cable terminal connections, and
 - \leq 500 micro ohms for the total battery connection resistance which includes all inter-cell connections (including bus bars), all inter-tier connections (including cable resistance) and all field terminal connections at the battery.
 - 2. The average electrolyte temperature of the representative cells is $\geq 65^{\circ}F$.

This change requires the licensee to verify that, at least once per 92 days, there is no visible corrosion at battery terminals and connectors or to verify connection resistance values for inter-cell, inter-tier, terminal, and total battery connections. The restricted value for the maximum total battery connection resistance ensures that the required loads will have adequate terminal voltage under blackout, blackout plus accident, and station blackout (SBO) conditions.

This quarterly surveillance is acceptable since it can detect conditions that can cause power losses due to resistive heating and the frequency of this verification is acceptable based on industry practice and operating experience.

The second new quarterly surveillance to verify the average electrolyte temperature of representative cells to be $\geq 65^{\circ}F$ is consistent with IEEE-450. This minimum temperature is assumed in Salem's SBO coping time calculations and is acceptable as it is more conservative than the recommendation of the manufacturer.

Therefore, the staff finds the changes to SR 4.8.2.5.2.c are acceptable since the requirements of 10 CFR 50.63 and GDC 17 will continue to be met.

3.6 SR 4.8.2.5.2.d.

The existing TS SR 4.8.2.5.2.d is renumbered as 4.8.2.5.2.f. The staff considers the renumbering to be an editorial change, and thus, is acceptable.

A new section 4.8.2.5.2.d is inserted, and provides that each 28 VDC battery and required charger shall be demonstrated operable:

- d. At least once per 12 months by verifying that:
 - 1. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.
 - 2. Remove visible terminal corrosion and verify cell-to-cell and terminal connections are coated with anti-corrosion material.
 - 3. The connection resistance is:
 - ≤ 50 micro ohms for inter-cell connections,
 - ≤ 200 micro ohms for inter-tier connections,
 - ≤ 70 micro ohms for field cable terminal connections, and
 - \leq 500 micro ohms for the total battery connection resistance which includes all inter-cell connections (including bus bars), all inter-tier connections (including cable resistance) and all field terminal connections at the battery.

The annual verification consists of visual inspection of the cells, cell plates, battery racks, removal of corrosion, and coating terminal connections with anti-corrosion material. These activities are normal industry practices for operating, inspection, and maintenance of batteries. These are as recommended by IEEE-450 to confirm that the battery is operable. Verification of the connection resistance as formulated in SR 4.8.2.5.2.c is a confirmation that any corrosion trend is detected and corrected. The staff finds the changes to SR 4.8.2.5.2.d are acceptable since satisfactory completion of this SR will verify that the 28 VDC Battery System has been maintained in a manner that ensures that the initial conditions of Salem's accident analysis will continue to be valid.

3.7 SR 4.8.2.5.2.e.

TS SR 4.8.2.5.2.e is renumbered as 4.8.2.5.2.g, and a new section, SR 4.8.2.5.2.e, is inserted, and provides that each 28 VDC battery and required charger shall be demonstrated operable:

e. At least once per 18 months by verifying that the battery charger will supply \geq 150 amperes at \geq 28 volts for \geq 4 hours.

The staff finds the changes to SR 4.8.2.5.2.e are acceptable since: (1) the rating of the charger exceeds the load profiles of Salem by approximately 25 amperes while allowing the licensee to recharge and keep the battery on float fully charged, and (2) the associated requirements of GDC 17 for the 28 VDC Battery System will continue to be ensured with satisfactory completion of this SR.

3.8 SR 4.8.2.5.2.g.

TS SR 4.5.2.5.2.g (old 4.8.2.5.2.e) is revised to reflect the renumbering of SR 4.8.2.5.2.d to new SR 4.8.2.5.2.f. The staff finds this change to be acceptable since it is an editorial change. The staff notes that the former SR 4.8.2.5.2.e states that the satisfactory completion of the performance test shall also satisfy the requirement of the service test. Since the performance discharge test of 275 amps envelops the service test rates for Salem, satisfactory completion of SR 4.5.2.5.2.g will continue to ensure compliance with associated GDC 17 requirements. Therefore, the staff finds this change to be acceptable.

3.9 SRs 4.8.2.5.2.h and 4.8.2.5.2.i

SRs 4.8.2.5.2.h and 4.8.2.5.2.i are added to TS SRs contained in TS SR Section 4.8.2.5.2, and provides that each 28 VDC battery and required charger shall be demonstrated operable:

- h. At least once per 12 months, during shutdown, if the battery shows signs of degradation <u>OR</u> has reached 85% of the service life with a capacity less than 100% of manufacturers rating, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its capacity on the previous performance test, or is below 90% of the manufacturer's rating.
- i. At least once per 24 months, during shutdown, if the battery has reached 85% of the service life with capacity greater than or equal to 100% of manufacturer's rating, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test.

The new SRs are added to reflect battery degradation or reaching 85% of the service life of the battery. The frequency of the performance discharge test is based on available capacity of the battery, i.e., less than 100%, or greater or equal to 100% of the rating of the manufacturer. These SRs are consistent with the recommendations of IEEE-450 and RG 1.129, and give reasonable assurance that the battery is operable. Therefore, the staff finds the addition of SRs 4.8.2.5.2.h and 4.8.2.5.2.i acceptable since satisfactory completion of this SR will ensure

that the 28 VDC Battery System will continue to meet the initial conditions of Salem's accident analysis.

3.10 Footnote to SR 4.8.2.5.2

The footnote to SR 4.8.2.5.2, for Salem Unit No. 1 only, is deleted. This footnote referred to a specific event, 1R13, which has now been completed making the note moot. Since removal of this footnote is editorial in nature, the staff finds this change acceptable.

3.11 Table 4.8.2.5-1

The licensee is proposing to add a table "Table 4.8.2.5-1, BATTERY CELL PARAMETER REQUIREMENTS" to the TS. The values of the battery cell parameters set forth in the proposed table are the acceptable limits to ensure that the battery is operable. The limits are for electrolyte level, float voltage and specific gravity for three different categories: Category A defines the acceptable limits for each designated pilot cell; Category B defines the acceptable limits for each connected cell; and Category C defines the allowable values for each connected cell. In addition, Table 4.8.2.5-1 has three footnotes as follows:

- (a) It is acceptable for the electrolyte level to temporarily increase above the specified maximum level during equalizing charge provided it is not overflowing.
- (b) Corrected for electrolyte temperature and level. Level correction is not required, however, when battery charging is < 2 amps when on float charge.
- (c) Or battery charging current is < 2 amps when on float charge. This is acceptable only during a maximum of 7 days following a battery recharge.

The staff has reviewed the proposed parameter values of each category and the associated footnotes and finds them acceptable as they are based on the recommendations of IEEE 450 and the battery manufacturer. However, if a battery parameter is outside the category C allowable limits, the battery will be declared inoperable. The staff finds the parameters contained in Table 4.8.2.5-1 acceptable since they contain the appropriate requirements to ensure that the 28 VDC Battery System will continue to meet the initial conditions of Salem's accident analysis and thus GDC 17.

3.12 NRC Staff's Conclusions

Based on its review, and for the reasons set forth above, the NRC staff concludes that the proposed TS will improve the means of monitoring and evaluating the 28 VDC batteries in order to establish battery operability. As a result, overall battery performance will continue to meet Salem's minimum design requirements, accident analyses assumptions, and applicable requirements of GDC 17.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (66 FR 57124). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: S. Saba

Date: January 4, 2002

PSEG Nuclear LLC

Salem Nuclear Generating Station, Unit Nos. 1 and 2

CC:

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